

Surface Mount High Reliability Mixer

ADE-R30W+

Level 7 (LO Power +7 dBm) 300 to 4000 MHz



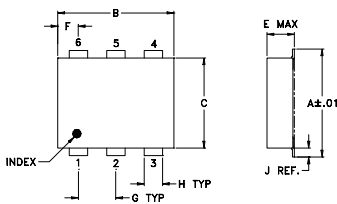
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

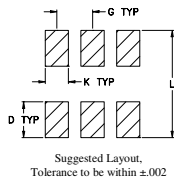
Pin Connections

LO	6
RF	3
IF	2
GROUND	1,4,5

Outline Drawing



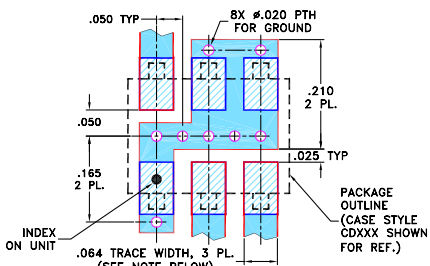
PCB Land Pattern



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.112	.055	.100
6.91	7.87	5.59	2.54	2.84	1.40	2.54
H	J	K	L	wt		
.030	.026	.065	.300	grams		
0.76	0.66	1.65	7.62	0.20		

Demo Board MCL P/N: TB-03 Suggested PCB Layout (PL-052)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- ▨ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- hermetically sealed ceramic quad
- low conversion loss, 6.0 dB typ.
- excellent L-R isolation, 38 dB typ.
- low profile package
- aqueous washable
- protected by U.S. patent 6,133,525

Applications

- cellular
- PCN
- instrumentation
- ISM

Electrical Specifications

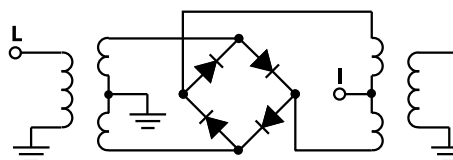
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
		Typ.	Min.	Typ.	Min.	
300-4000	DC-950	6.0	0.20	9.0	9.8	38
		13	6			12

1 dB COMP: +1 dBm typ.
m= mid band [2f_L to f_U/2]

Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
220.00	250.00	6.05	54.31	36.33	3.04
320.00	350.00	5.28	50.04	33.50	1.97
420.00	450.00	5.10	48.09	32.21	1.47
620.00	650.00	4.99	45.12	30.84	1.22
820.00	850.00	5.19	42.90	29.52	1.98
1020.00	1050.00	5.78	46.25	27.01	3.00
1220.00	1250.00	6.09	49.86	18.05	3.36
1420.00	1450.00	5.96	52.17	14.47	3.01
1620.00	1650.00	6.38	38.54	13.08	2.72
1840.00	1870.00	6.82	39.68	11.88	3.27
2060.00	2090.00	7.12	45.23	11.40	3.79
2280.00	2310.00	7.05	51.67	11.39	3.77
2400.00	2430.00	7.20	49.37	11.46	3.46
2620.00	2650.00	7.14	42.78	11.25	3.32
2840.00	2870.00	6.69	39.28	10.57	3.04
3060.00	3090.00	6.63	33.16	9.61	2.47
3280.00	3310.00	6.03	31.58	10.64	1.66
3600.00	3630.00	5.91	30.06	13.14	1.02
3820.00	3850.00	6.63	30.25	14.23	1.59
4040.00	4070.00	7.92	30.47	14.24	2.45

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED
The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

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